EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1553	(alpha adj amylase$1) same bacillus same (mutant$1 or variant$1)	US-PGPUB; USPAT	ADJ	OFF	2007/02/21 10:47
L2	167205	(residue$1 or position$1 or amino acid$1 or muta$6) same ("168" or "169" or "170" or "171" or "172" or "173" or "174")	US-PGPUB; USPAT	ADJ	OFF	2007/02/21 10:48
L3	1237	1 and 2	US-PGPUB; USPAT	ADJ	OFF	2007/02/21 10:49
L4	287	3 not shiroza	US-PGPUB; USPAT	ADJ	OFF	2007/02/21 10:49

11/16/00

FILE 'HOME' ENTERED AT 10:57:54 ON 21 FEB 2007

```
=> fil .bec
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY       SESSION
FULL ESTIMATED COST                               0.21         0.21
```

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
     ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 10:58:10 ON 21 FEB 2007
ALL COPYRIGHTS AND RESTRICTIONS APPLY. SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

```
=> s alpha(w)amylase# and bacillus and (muta? or variant#)
FILE 'MEDLINE'
        579756 ALPHA
         22594 AMYLASE#
          5272 ALPHA(W)AMYLASE#
         53988 BACILLUS
        545303 MUTA?
        120162 VARIANT#
L1         213 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'SCISEARCH'
        827851 ALPHA
         19317 AMYLASE#
          8847 ALPHA(W)AMYLASE#
         56297 BACILLUS
        531007 MUTA?
        134849 VARIANT#
L2         336 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'LIFESCI'
        179124 ALPHA
          4862 AMYLASE#
          2940 ALPHA(W)AMYLASE#
         28472 BACILLUS
        240791 MUTA?
         40738 VARIANT#
L3         134 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'BIOTECHDS'
         32861 ALPHA
          6253 AMYLASE#
          3971 ALPHA(W)AMYLASE#
         19288 BACILLUS
         48660 MUTA?
         16770 VARIANT#
L4         290 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'BIOSIS'
        726525 ALPHA
         29897 AMYLASE#
         10851 ALPHA(W)AMYLASE#
         74519 BACILLUS
        589670 MUTA?
        122080 VARIANT#
L5         265 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'EMBASE'
        648979 ALPHA
         17102 AMYLASE#
          3841 ALPHA(W)AMYLASE#
```

```
            39794 BACILLUS
           459035 MUTA?
           105346 VARIANT#
L6           147 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'HCAPLUS'
          1667631 ALPHA
            48467 AMYLASE#
            20586 ALPHA(W)AMYLASE#
            94692 BACILLUS
           555586 MUTA?
           119653 VARIANT#
L7           527 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'NTIS'
            29253 ALPHA
              167 AMYLASE#
               63 ALPHA(W)AMYLASE#
             1803 BACILLUS
            10290 MUTA?
             4776 VARIANT#
L8             1 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'ESBIOBASE'
           255425 ALPHA
             5294 AMYLASE#
             2565 ALPHA(W)AMYLASE#
            19312 BACILLUS
           286317 MUTA?
            52458 VARIANT#
L9            95 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'BIOTECHNO'
           189431 ALPHA
             4194 AMYLASE#
             2130 ALPHA(W)AMYLASE#
            19958 BACILLUS
           242571 MUTA?
            41198 VARIANT#
L10          108 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)


FILE 'WPIDS'
           195259 ALPHA
             8613 AMYLASE#
             3117 ALPHA(W)AMYLASE#
            16771 BACILLUS
            35381 MUTA?
            32200 VARIANT#
L11          150 ALPHA(W)AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)

TOTAL FOR ALL FILES
L12         2266 ALPHA(W) AMYLASE# AND BACILLUS AND (MUTA? OR VARIANT#)

=> s (168 or 169 or 170 or 171 or 172 or 173 or 174)(10a)(residue# or position# or
amino acid# or muta?)
FILE 'MEDLINE'
            16027 168
            12615 169
            24119 170
            12569 171
            13021 172
            12372 173
            14250 174
           207138 RESIDUE#
           235574 POSITION#
```

```
         641168 AMINO
        1673685 ACID#
         577018 AMINO ACID#
                  (AMINO(W)ACID#)
         545303 MUTA?
L13         4086 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                  OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'SCISEARCH'
          13309 168
           9929 169
          27122 170
           9970 171
          10576 172
          10371 173
          10410 174
         219871 RESIDUE#
         330242 POSITION#
         406614 AMINO
        1386177 ACID#
         316798 AMINO ACID#
                  (AMINO(W)ACID#)
         531007 MUTA?
L14         3703 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                  OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'LIFESCI'
           2894 168
           1870 169
           5159 170
           1748 171
           1905 172
           1662 173
           2026 174
          94710 RESIDUE#
          70188 POSITION#
         174652 "AMINO"
         352865 ACID#
         150725 AMINO ACID#
                  ("AMINO"(W)ACID#)
         240791 MUTA?
L15         2313 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                  OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'BIOTECHDS'
           1141 168
            579 169
           1598 170
            615 171
            639 172
            581 173
            670 174
          25984 RESIDUE#
          15818 POSITION#
          71259 AMINO
         158837 ACID#
          66316 AMINO ACID#
                  (AMINO(W)ACID#)
          48660 MUTA?
L16         1391 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                  OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'BIOSIS'
          13764 168
           9673 169
```

```
              22748 170
               9181 171
              10071 172
               9251 173
              11756 174
             246083 RESIDUE#
             241314 POSITION#
             543220 AMINO
            1453725 ACID#
             414155 AMINO ACID#
                        (AMINO(W)ACID#)
             589670 MUTA?
L17            4412 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                    OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'EMBASE'
              11065 168
               8855 169
              19013 170
               8098 171
               8590 172
               7964 173
               8884 174
             181675 RESIDUE#
             209851 POSITION#
             446494 "AMINO"
            1499115 ACID#
             336701 AMINO ACID#
                        ("AMINO"(W)ACID#)
             459035 MUTA?
L18            3570 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                    OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'HCAPLUS'
              42195 168
              28749 169
             130489 170
              27882 171
              33321 172
              29633 173
              32239 174
             670839 RESIDUE#
             556377 POSITION#
            1106319 AMINO
            4819438 ACID#
             704368 AMINO ACID#
                        (AMINO(W)ACID#)
             555586 MUTA?
L19            7608 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                    OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'NTIS'
               1320 168
                949 169
               3259 170
                957 171
               1073 172
               1266 173
               1042 174
              11365 RESIDUE#
              51965 POSITION#
               7047 AMINO
              55897 ACID#
               5175 AMINO ACID#
                        (AMINO(W)ACID#)
```

```
              10290 MUTA?
L20          65 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'ESBIOBASE'
              5034 168
              3620 169
              8344 170
              3473 171
              3793 172
              3485 173
              3903 174
            115522 RESIDUE#
             86210 POSITION#
            190712 AMINO
            429941 ACID#
            167034 AMINO ACID#
                  (AMINO(W)ACID#)
            286317 MUTA?
L21        2401 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'BIOTECHNO'
              2509 168
              1821 169
              4814 170
              1689 171
              1867 172
              1729 173
              1973 174
             96204 RESIDUE#
             55352 POSITION#
            204625 AMINO
            371908 ACID#
            173749 AMINO ACID#
                  (AMINO(W)ACID#)
            242571 MUTA?
L22        2629 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                OR POSITION# OR AMINO ACID# OR MUTA?)


FILE 'WPIDS'
              7173 168
              2687 169
             50100 170
              5925 171
              7301 172
              3790 173
              5502 174
            204821 RESIDUE#
           1528538 POSITION#
            281507 AMINO
           1119020 ACID#
            100966 AMINO ACID#
                  (AMINO(W)ACID#)
             35381 MUTA?
L23        2637 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                OR POSITION# OR AMINO ACID# OR MUTA?)


TOTAL FOR ALL FILES
L24       34815 (168 OR 169 OR 170 OR 171 OR 172 OR 173 OR 174)(10A)(RESIDUE#
                OR POSITION# OR AMINO ACID# OR MUTA?)


=> s l12 and l24
FILE 'MEDLINE'
L25           4 L1 AND L13
```

```
FILE 'SCISEARCH'
L26          4 L2 AND L14

FILE 'LIFESCI'
L27          2 L3 AND L15

FILE 'BIOTECHDS'
L28          7 L4 AND L16

FILE 'BIOSIS'
L29          2 L5 AND L17

FILE 'EMBASE'
L30          2 L6 AND L18

FILE 'HCAPLUS'
L31          9 L7 AND L19

FILE 'NTIS'
L32          0 L8 AND L20

FILE 'ESBIOBASE'
L33          0 L9 AND L21

FILE 'BIOTECHNO'
L34          2 L10 AND L22

FILE 'WPIDS'
L35          5 L11 AND L23

TOTAL FOR ALL FILES
L36          37 L12 AND L24

=> dup rem l36
PROCESSING COMPLETED FOR L36
L37          21 DUP REM L36 (16 DUPLICATES REMOVED)

=> d tot l35
```

L35   ANSWER 1 OF 5   WPIDS COPYRIGHT 2007   THE THOMSON CORP on STN

TI   Alpha-amylase variants especially for use in
      detergents or cleaning agents have a surface asparagine or glutamine
      residue exchanged to impart improved solvent stability
PI   DE 102004047777 A1 20060413 (200630)* DE   54[2]
      WO 2006037484   A2 20060413 (200630) DE
          RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT
              KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ
              UG ZM ZW
           W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
              DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
              KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG
              NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR
              TT TZ UA UG US UZ VC VN YU ZA ZM ZW
IN   BESSLER C; MAURER K; MAURER K H; WIELAND S

L35   ANSWER 2 OF 5   WPIDS COPYRIGHT 2007   THE THOMSON CORP on STN

TI   Modulating Sec-dependent protein secretion, comprises introducing a
      spoIIIJ or yqjG gene linked to an inducible promoter into a
      Bacillus cell and modulating the expression of the spoIIIJ or yqjG
      gene
PI   WO 2003060068   A2 20030724 (200356)* EN   50[8]   C12N000-00
          RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU

```
                MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
           W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
              DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
              KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
              RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
              ZM ZW
        AU 2002353111    A1 20030730 (200421)   EN
        EP 1472342       A2 20041103 (200472)   EN              C12N005-02
           R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC
              MK NL PT RO SE SI SK TR
        US 20050170511   A1 20050804 (200552)   EN              C12P021-06
        AU 2002353111    A8 20051020 (200615)   EN              C12N005-02
IN      BRON S; TJALSMA H; VAN DIJL J M

L35   ANSWER 3 OF 5  WPIDS COPYRIGHT 2007        THE THOMSON CORP on STN

TI    Variant of parent Termamyl-like alpha amylase
      , useful in detergent compositions, for starch liquefaction, ethanol
      production, washing and/or dish washing, and textile desizing
PI    WO 2002010355   A2 20020207 (200232)* EN  90[1]        C12N009-00
         RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
             NL OA PT SD SE SL SZ TR TZ UG ZW
          W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
             DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
             KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
             SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
        AU 2001078415   A  20020213 (200238)   EN
        US 20020155574  A1 20021024 (200273)   EN              C12N009-28
        EP 1370648      A2 20031217 (200402)   EN              C12N009-28
           R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
        JP 2004508815   W  20040325 (200422)   JA  146         C12N015-09
        CN 1529752      A  20040915 (200501)   ZH              C12N009-28
        US 20050250663  A1 20051110 (200574)   EN              C12N009-28
        AU 2001278415   A8 20051013 (200611)   EN              C12N009-28
IN    ANDERSEN C; FUGLSANG C C; KJAERULFF S; KJARULFF S; THISTED T

L35   ANSWER 4 OF 5  WPIDS COPYRIGHT 2007        THE THOMSON CORP on STN

TI    New nucleic acid encoding lipid acyl hydrolase proteins having pesticidal
      activity, derived from rice, soybean, or wheat, for controlling insect
      infestation and pathogenic infection in transgenic plants
PI    WO 2001036468   A2 20010525 (200137)* EN  89[9]        C07K014-00
         RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
             NL OA PT SD SE SL SZ TR TZ UG ZW
          W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
             DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
             LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
             SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
        AU 2001016129   A  20010530 (200152)   EN
IN    CIGAN A L

L35   ANSWER 5 OF 5  WPIDS COPYRIGHT 2007        THE THOMSON CORP on STN

TI    Alpha-amylase variants and methods of
      production  - have altered properties such as calcium dependency,
      substrate binding and stability
PI    WO 9623874      A1 19960808 (199637)* EN  171[10]
         RW: AT BE CH DE DK EA ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE
             SZ UG
          W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS
             JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT
             RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
        AU 9644834      A  19960821 (199648)   EN
        BR 9607013      A  19971028 (199750)   PT
        EP 808363       A1 19971126 (199801)   EN  [0]
```

```
        R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
   MX 9705906       A1 19971001 (199901)  ES                   C12N009-28
   JP 11500003      W  19990106 (199911)  JA   165             C12N015-09
   KR 98701901      A  19980625 (199924)  KO                   C12N009-28
   US 5989169       A  19991123 (200002)  EN
   US 6022724       A  20000208 (200014)  EN                   C12N009-28
   US 6440716       B1 20020827 (200259)  EN
   CN 1172501       A  19980204 (200331)  ZH
   US 20030170769   A1 20030911 (200367)  EN
   US 20050019886   A1 20050127 (200509)  EN
   US 20050170487   A1 20050804 (200552)  EN
   KR 2005046778    A  20050518 (200641)  KO
   US 7115409       B1 20061003 (200665)  EN
   KR 511499        B  20051221 (200705)  KO
   US 7163816       B2 20070116 (200706)  EN
IN   BISGARD F H; BISGARD-FRANTZEN H; BISGARDFRANTZEN H; BORCHERT T; BORCHERT T
     V; SVENDSEN A; BISGAARD-FRANTZEN H


=> log y
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY       SESSION
FULL ESTIMATED COST                              61.05        61.26

STN INTERNATIONAL LOGOFF AT 11:07:33 ON 21 FEB 2007
```